

Paramraj Singh Machre

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SUMMARY

Entry-level Software Engineer passionate about building scalable, user-centric systems. Experienced in backend and full-stack development using Python, Java, Node.js, and AWS, with hands-on AI/ML projects applying model deployment. Proven ability to lead technical projects, drive optimizations, and deliver results in collaborative and agile environments.

EDUCATION

University of Maryland, College Park (UMD)

Aug. 2021 – May 2025

Bachelor of Science in **Computer Science**, Minor in **History**

- **Awards:** Dean's List for Outstanding Students (Dec. 2021, Dec. 2023)
- **Relevant Coursework:** Object Oriented Programming (OOP), Statistics, Algorithms, Databases, Data Science, Web Dev, Advanced Data Structures, Databases, Computer Vision, Network Security, Functional Programming

TECHNICAL SKILLS

AI/ML: NLP, k-NN, SVMs, XGBoost, Regression, Clustering, Classification, YOLO, Eigenfaces, Sentiment Analysis

Languages: Python, Java, JavaScript, Kotlin, Ruby, HTML/CSS, C, C++

Frameworks: MongoDB, Firebase, AWS, React, Next.js, Node.js, Express, REST API, MySQL, PostgreSQL, NoSQL

Libraries: Pandas, NumPy, Matplotlib, TensorFlow, PyTorch, Keras, OpenCV

Tools: Git, GitHub, Postman, Docker, Jira, Confluence, Tableau, Streamlit, Figma, Android Studio, Excel

EXPERIENCE

Snowflake Inc.

May 2024 – Aug. 2024

Software Developer Intern

Dublin, CA

- Designed and implemented a comprehensive **JUnit testing framework** with **16 regression scenarios** across **200+ JSON contract types**, reducing test time by **87%**.
- Developed a **Streamlit UI** tool using **Python, SQL, and Snowpark** to visualize and debug stored procedures, decreasing engineer query time by **45%**.
- Collaborated with engineering and finance teams to optimize month-end **finance calculations** in an **Agile development environment**, enhancing **CI/CD reliability** with a **94%** runtime improvement.
- Instrumented **granular logging** for blackbox procedures, cutting root-cause analysis time from hours to minutes and improving team debugging velocity.

Maryland Club Climbing

Jan. 2024 – Dec. 2024

President

College Park, MD

- Led and coordinated **75+ members** through tri-weekly indoor and outdoor training sessions with safety officers, strengthening communication, fostering engagement, resulting in a **34%** increase in attendance.
- Secured partnerships with **SportRock Gyms** and **Mid Atlantic Climbers** to expand gym access and organize service events; led intercollegiate competitions per semester where UMD placed **Top 3 in 3 of 4** events.

PROJECTS

Electronic Document Management System (EDMS)

github.com/bennytobby/edms | edms-blue.vercel.app

Node.js, Express, MongoDB, AWS S3, EJS/CSS, Bcrypt, JWT, Nodemailer, GitHub Actions, Jest

- Built a secure **full-stack EDMS** using **Node.js/Express**, **MongoDB**, and **AWS S3**, implementing **role-based access control** with **JSON Web Token authentication**, protecting sensitive data for **50+ user accounts**.
- Optimized file handling by integrating **pre-signed AWS S3 URLs**, reducing server bottlenecks and improving upload/retrieval speed by **30% across 100+ test files**.
- Developed a responsive **EJS/CSS dashboard** and admin panel with advanced search and automated **Nodemailer alerts**, enabling real-time oversight of **100+ file events**.
- Implemented production-ready **GitHub Actions CI/CD** with **Jest API tests**, achieving **95%+ test pass rates** and ensuring rapid, reliable deployments on **Vercel**.

CERTIFICATIONS

AI/ML: AI For Everyone, Getting Started with AI, Microsoft Azure AI Fundamentals

Jul 2025

Cloud: AWS Certified Cloud Practitioner, AWS Certified Developer – Associate

In Progress